

RECEIVED

MAY 24 2002

Technology Center 2600

Sheet 1 of 1



FORM PTO-1449		ATTY. DOCKET NO. I-2-0173.4US	SERIAL NO. 10/080,140
APPLICANT De et al.			
FILING DATE 2/21/2002		GROUP Not Yet Known	

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

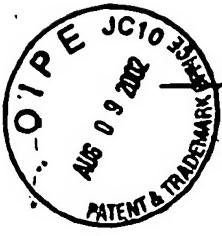
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW	AA	Ramjee Prasad, Werner Mohr and Walter Konhauser editors, <i>Third Generation Mobile Communication Systems</i> , Artech House, Boston, 2000.
	AB	Anja Klein, Ghassan Kawas Kalleh and Paul Walter Baier, "Zero Forcing and Minimum Mean-Square Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", <i>IEEE Trans. on Vehicular Technology</i> , Vol.45, No. 2, pp. 276-287, May 1996.
	AC	Naja Klein, "Data Detection Algorithms Specially Designed for the Downlink of CDMA Mobile Radio Systems", <i>IEEE 47th Vehicular Technology Conference</i> , pp. 203-207, May 1997.
	AD	H.R. Karimi and N.W. Anderson, "A Novel and Efficient Solution to Block-Based Joint-Detection using Approximate Cholesky Factorization", <i>Personal, Indoor and Mobile Communications PIMRC' 98</i> , Conference Proceedings, Vol. 3, pp. 1340-1345, Sept. 1998, Boston, MA.
	AE	ETSI STC SMG2 Layer 1 Expert Group, "Low Cost MMSE-BLE-SD Algorithm for UTRA TDD Mode Downline", Tdoc SMG2 UMTS L1, Helsinki, Finland, Sept. 1998.
↓	AF	3G TS 25.102 V3.4.0, 2000-10, "UTRA (TDD) Radio Transmission and Reception", 3rd Generation Partnership Project, Technical Specification Group RAN WG4, Annex B., pp. 37.

EXAMINER	DATE CONSIDERED
/Robert Wilson/	06/02/2006

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Sheet 1 of 1

FORM PTO-1449

**U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE**

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO.
I-2-0173.4US

SERIAL NO.
10/080,140

APPLICANT

FILING DATE
2/21/2002

GROUP
2681

U.S. PATENT DOCUMENTS

RECEIVED

~~AUG 13 2002~~

~~Technology Center 2600~~

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW ↓	AG	Benvenuto N. et al. "Joint Detection With Low Computational Complexity For Hybrid TD-CDMA Systems" VTC 1999-Fall. IEEE VTS 50th. Vehicular Technology Conference. Gateway to the 21st Century Communications Village. Amsterdam, Sept. 19-22, 1999, IEEE Vehicular Technology Conference, NY
	AH	Vandaele P. et al. "Recursive Total Least Squares Algorithm for Single-User Blind Channel Equalisation: IEE Proceedings: Vision, Image and Signal Processing, Institution of Electrical Engineers, FB, Vol 147, No. 3, 23 June 2000

EXAMINER

/Robert Wilson/

DATE CONSIDERED

06/02/2006

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

COPY OF PAPERS
ORIGINALLY FILED



JAN 30 2003

Sheet 1 of 1

FORM PTO-1449	ATTY. DOCKET NO. I-2-0173.4US	SERIAL NO. 10/080,140
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICANT De et al.	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE 2/21/2002	GROUP 2681
(Use several sheets if necessary)		

RECEIVED

U.S. PATENT DOCUMENTS

EXAMINE R INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW	AG	Weidong Yang et al., "Fast Joint Detection with Cyclic Reduction Exploiting Displacement Structures", 2000 IEEE International Conference on Acoustics, Speech, and Signal Processing, Istanbul, Turkey, 5-9 June. Proceedings (Cat. No 00CH37100),
	AH	Proakis John G., "Digital Signal Processing, Macmillan Publishing Company, New York, NY, 1992, pg. 835, para. 11.3.1, page 890, para. 12.3.2
	AI	Vollmer et al., "Joint-Detection Using Fast Fourier Transforms in TD-CDMA based Mobile Radio Systems", International Annual Conference of ICT, 1999, pages 1-7 page 1, para. I, page 2, para. II, page 3, para III, page 4, para IV.
	AJ	Pigeonnat Y., "Alternative Solutions for Joint Detection in TD/CDMA Multiple Access Scherme for UMTS", IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications, May 9, 1999, pages 329-332 page 329, para. 2.

EXAMINER	/Robert Wilson/	DATE CONSIDERED 06/02/2006
----------	-----------------	-------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. I-2-0173.4US	SERIAL NO. 10/080,140
APPLICANT De et al.		
	FILING DATE February 21, 2002	GROUP 2667

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW		Ramjee Prasad, Werner Mohr and Walter Konhauser editors, <i>Third Generation Mobile Communication Systems</i> , Artech House, Boston, 2000.
		Anja Klein, Ghassan Kawas Kalleh and Paul Walter Baier, "Zero Forcing and Minimum Mean-Square Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", <i>IEEE Trans. on Vehicular Technology</i> , Vol.45, No. 2, pp. 276-287, May 1996.
↓		Naja Klein, "Data Detection Algorithms Specially Designed for the Downlink of CDMA Mobile Radio Systems", <i>IEEE 47th Vehicular Technology Conference</i> , pp. 203-207, May 1997.

EXAMINER /Robert Wilson/	DATE CONSIDERED 06/02/2006
------------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<p style="text-align: center;">U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE</p> <p style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p style="text-align: center;">(Use several sheets if necessary)</p>		ATTY. DOCKET NO. I-2-0173.4US	SERIAL NO. 10/080,140
		APPLICANT De et al.	
		FILING DATE February 21, 2002	GROUP 2667

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW		H.R. Karimi and N.W. Anderson, "A Novel and Efficient Solution to Block-Based Joint-Detection using Approximate Cholesky Factorization", <i>Personal, Indoor and Mobile Communications PIMRC'98</i> , Conference Proceedings, Vol. 3, pp. 1340-1345, Sept. 1998, Boston, MA.
		ETSI STC SMG2 Layer 1 Expert Group, "Low Cost MMSE-BLE-SD Algorithm for UTRA TDD Mode Downline", Tdoc SMG2 UMTS L1, Helsinki, Finland, Sept. 1998.
		3G TS 25.102 V3.4.0, 2000-10, "UTRA (TDD) Radio Transmission and Reception", 3rd Generation Partnership Project, Technical Specification Group RAN WG4, Annex B., pp. 37.
		Lang Tong; Guanghan xu; Kailath T: "Blind identification and equalization based on second -order statistics: a time domain approach", IEEE Trans. Inf. Theory (USA), IEEE Transactions on Information Theory, March 1994, USA, ISSN 0018-9448, VOL-40, NR 2, pages 340-349
		Benvenuto N. et al. "Joint Detection With Low Computational Complexity For Hybrid TD-CDMA Systems" VTC 1999-Fall. IEEE VTS 50th. Vehicular Technology Conference. Gateway to the 21st Century Communications Village. Amsterdam, Sept. 19-22, 1999, IEEE Vehicular Technology Conference, NY
		Vandaele P. et al. "Recursive Total Least Squares Algorithm for Single-User Blind Channel Equalisation: IEE Proceedings: Vision, Image and Signal Processing, Institution of Electrical Engineers, FB, Vol 147, No. 3, 23 June 2000
		Yang et al., "Fast Joint Detection with Cyclic Reduction Exploiting Displacement Structures", 2000 IEEE International Conference on Acoustics, Speech and Signal Processing, Istanbul, Turkey, June 2000
		Proakis et al., "Digital Signal Processing", Macmillan Publishing Company, New York, NY, 1992, p. 835, para. 11.3.1, p. 890, para. 12.3.2
		Vollmer et al., "Joint-Detection Using Fast Fourier Transforms in TD-CDMA Based Mobile Radio Systems", International Annual Conference of ICT, 1999, pp. 1-7, p. 1, para. 1, p. 2, para. II, p. 3, para. III, p. 4, para. IV.
↓		Pigeonnat, "Alternative Solutions for Joint Detection in TD/CDMA Multiple Access Scheme for UMTS", IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications, May 1999, pp. 329-332, p. 329, para. 2.

EXAMINER <i>/Robert Wilson/</i>	DATE CONSIDERED 06/02/2006
------------------------------------	-------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE FEB 09 2006 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		ATTY. DOCKET NO. I-2-0173.4US	SERIAL NO. 10/080,140
		APPLICANT De et al.	
		FILING DATE February 21, 2002	GROUP 2661

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
RW	*	5,157,688	10/1992	Dell-Imagine			
		5,337,226	12/1994	Davis			
		5,377,225	12/1994	Davis			
	*	5,477,225	12/1995	Young et al.			
		5,648,983	07/1997	Kostic et al.			
	*	6,064,689	05/2000	Vollmer et al.			
	*	2002/0126619	09/2002	De et al.			
	*	2002/0126646	09/2002	De et al.			
	*	2002/0131383	09/2002	De et al.			
	*	2002/0136160	09/2002	De et al.			
	*	2002/0141366	10/2002	De et al.			
	*	2002/0141372	10/2002	De et al.			
	*	2002/0141373	10/2002	De et al.			
	*	2002/0154599	10/2002	De et al.			
	*	2002/0154619	10/2002	De et al.			
	*	2002/0159383	10/2002	De et al.			
▼	*	2002/0159428	10/2002	De et al.			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW		Ramjee Prasad, Werner Mohr and Walter Konhauser editors, <i>Third Generation Mobile Communication Systems</i> , Artech House, Boston, 2000.
↓		Anja Klein, Ghassan Kawas Kaled and Paul Walter Baier, "Zero Forcing and Minimum Mean-Square Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", <i>IEEE Trans. on Vehicular Technology</i> , Vol.45, No. 2, pp. 276-287, May 1996.
↓		Naja Klein, "Data Detection Algorithms Specially Designed for the Downlink of CDMA Mobile Radio Systems", <i>IEEE 47th Vehicular Technology Conference</i> , pp. 203-207, May 1997.

EXAMINER /Robert Wilson/	DATE CONSIDERED 06/02/2006
-----------------------------	-------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE FEB 09 2006 INFORMATION DISCLOSURE STATEMENT BY APPLICANT O I P PATENT & TRADEMARK OFFICE (Use several sheets if necessary)		ATTY. DOCKET NO. I-2-0173.4US	SERIAL NO. 10/080,140
		APPLICANT De et al.	
		FILING DATE February 21, 2002	GROUP 2661

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RW		H.R. Karimi and N.W. Anderson, "A Novel and Efficient Solution to Block-Based Joint-Detection using Approximate Cholesky Factorization", <i>Personal, Indoor and Mobile Communications PIMRC'98</i> , Conference Proceedings, Vol. 3, pp. 1340-1345, Sept. 1998, Boston, MA.
		ETSI STC SMG2 Layer 1 Expert Group, "Low Cost MMSE-BLE-SD Algorithm for UTRA TDD Mode Downline", Tdoc SMG2 UMTS L1, Helsinki, Finland, Sept. 1998.
		3G TS 25.102 V3.4.0, 2000-10, "UTRA (TDD) Radio Transmission and Reception", 3rd Generation Partnership Project, Technical Specification Group RAN WG4, Annex B., pp. 37.
		Lang Tong; Guanghan xu; Kailath T: "Blind identification and equalization based on second -order statistics: a time domain approach", IEEE Trans. Inf. Theory (USA), IEEE Transactions on Information Theory, March 1994, USA, ISSN 0018-9448, VOL-40, NR 2, pages 340-349
		Benvenuto N. et al. "Joint Detection With Low Computational Complexity For Hybrid TD-CDMA Systems" VTC 1999-Fall. IEEE VTS 50th. Vehicular Technology Conference. Gateway to the 21st Century Communications Village. Amsterdam, Sept. 19-22, 1999, IEEE Vehicular Technology Conference, NY
		Vandaele P. et al. "Recursive Total Least Squares Algorithm for Single-User Blind Channel Equalisation: IEE Proceedings: Vision, Image and Signal Processing, Institution of Electrical Engineers, FB, Vol 147, No. 3, 23 June 2000
		Yang et al., "Fast Joint Detection with Cyclic Reduction Exploiting Displacement Structures", 2000 IEEE International Conference on Acoustics, Speech and Signal Processing, Istanbul, Turkey, June 2000
		Proakis et al., "Digital Signal Processing", Macmillan Publishing Company, New York, NY, 1992, p. 835, para. 11.3.1, p. 890, para. 12.3.2
		Vollmer et al., "Joint-Detection Using Fast Fourier Transforms in TD-CDMA Based Mobile Radio Systems", International Annual Conference of ICT, 1999, pp. 1-7, p. 1, para. 1, p. 2, para. II, p. 3, para. III, p. 4, para. IV.
↓		Pigeonnat, "Alternative Solutions for Joint Detection in TD/CDMA Multiple Access Scheme for UMTS", IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications, May 1999, pp. 329-332, p. 329, para. 2.

EXAMINER /Robert Wilson/	DATE CONSIDERED 06/02/2006
---------------------------------	-----------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.